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Belliveau

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(54) **LIGHTING DEVICES USING A PLURALITY OF LIGHT SOURCES**

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(58) **Field of Search** **362/184, 187, 362/188, 202, 232, 238, 240, 250, 285, 286, 288, 800, 203, 198**

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(57)

ABSTRACT

A device is disclosed that uses a plurality of light sources. The light sources may be light emitting diodes (LEDs). The light sources are arranged and mounted to a deformable flexible substrate. The light sources are arranged and mounted to the substrate as to emit their radiation perpendicular to the substrate. The substrate is flexed in a concave or convex manner by motor, magnetic field or other mechanical means. The light sources may emit their radiation perpendicular to the substrate, or they may diverge or converge their radiation away from the substrate. Perforations in the substrate provide cooling to the light sources by convection or forced air. A threaded holder may be screwed onto threads on a case in order to bend the flexible substrate to change the direction of light from the light sources mounted to the flexible substrate.

12 Claims, 18 Drawing Sheets

